

Tremellales with Tubular Hymenophores Found in Singapore

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Summary

The authors describe a new species of pore-bearing Tremellales: *Aporpium hexagonoides*, and discuss a collection of a species closely related to *A. dimidiatum* David.

Until recently, the poroid Tremellales were only represented by a resupinate species, *Aporpium caryae* (Scw.) Teix. & Rog. In a recent paper (David, 1974), a new species was described from Guadeloupe and named *A. dimidiatum* David. The author believed that the existence of Tremellales in the form of polypores might be far less exceptional than had been previously supposed. This opinion was confirmed by a short stay in Singapore² in July 1974 devoted to the study of the island's polypores, when several poroid fungi with longitudinally divided hypobasidia were collected. On one hand the stay in Singapore was very profitable as far as the number of species collected was concerned, but on the other we were disappointed in the results of trying to culture them. From the spore samples made on the spot in Singapore, we should have got polyspermous and monospermous mycelium on our return to Lyon, but only a low percentage of germinating spores were found, probably due to the 7-15 days' lapse before culturing. Are spores of equatorial species, developing in a climate which is always favourable for germination, particularly sensitive to drying out? The failure of the cultures, especially of monosperms, is to be regretted, because one specimen collected in Singapore shows, apart from its size, many characteristic features of *A. dimidiatum* described from Guadeloupe: no microscopic difference could be discerned. On the other hand other specimens certainly represent a new species —

Aporpium hexagonoides David & Jaquenoud, sp. nov.

Fructificationes parvula³, solitaria, subdimidiata vel dimidiata, in statu recenti coriacea elastica; in statu sicco dura cornia, 2-3 cm lata, 1-1.8 cm ad radium, 0.3-0.85 cm crassa. *Facie superiore* (Plate 1b) applanata vel leviter convexa, albida ad marginem, alibi pallide ochracea, 10 YR 8/6 7/6 7/8,⁴ molliter veluta (aut tomentosa) vel hispida in statu recenti; in arescendo corrugantur. Margine obtusa. *Facie inferiore* hymeniale (Plate 1a) pallide alutacea, 10 YR 8/2-2.5 Y 8/2. Pori magni, angulosi, plus minusve hexagonales, ca. 1mm diam. Multi fascies hyphacei ex hymenio eminentes, sub lente visibiles. Tubuli contexto concolori neque aparte separati. *Systema hypharum* dimiticum: hyphae sceleticae

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⁴See "Code Munsell Book of Color" (1950), Baltimore. Maryland.

hyalinae (3–) 4–5 μ diam., crassis tunicatis usque ad 1 μ hyphae generativae hyalinae tenuiter tunicatae, 2–3 μ diam., cum articulis longissimis, ut fibulae rarae atque difficiles visu sunt (Fig. 1b). *Basidia* claviformia 20 $\times$ 8 μ , longitudinaliter septata in parte superiore (Fig. 1a), 4 sterigmatis subulatis, 10–12 μ longis. *Basidiospores* hyalini, non cyanophili, non amyloidi, non dextrinoidi, subcylindrici, plus minusve depressi, cum regione apicali, Congo ammoniacali adhibito valde colorescente, 9–11 $\times$ 4–5 μ (Fig. 1c). Inter basidia paraphysoidi subsunt simplices plus minusve ramosi.

Haec species facile cognoscitur, quod pori magni saepe hexagonoides fiunt. Praeterea ab utraque alia specie nota magnitudine basidiorum atque spororum differt, et quod probasidium non prius quam in partibus superioribus dividitur.

LY AD 1763 (holotypus in herbario A. David, Univ. Lugduni), ad truncum profunde in humo infossum, in margine silvae, Jungle Fall Valley Path, post casam, Bukit Timah Reserve, Singapore, 28.7.1974.

Fruiting bodies small, solitary, subdimidiate to dimidiate, leathery and flexible when fresh, hard and horny when dried, 2–3 cm long, radius of 1–1.8 cm, and 0.3–0.85 cm thick. *Upper surface* (Plate 1b) applanate to slightly convex, light ochraceous 10 YR 8/6 7/6 7/8 except towards the margin which is whitish, velutinous to hispid when fresh, becoming strongly radially wrinkled on drying. *Hymenial surface* pale brown between 10 YR 8/2 and 2.5 Y 8/2. Pores big angular, more or less hexagonal, about 1 mm. diam (Plate 1a). Numerous fascicles of hyphae emerging from the hymenium and visible under the hand-lens. Tubes and context concolorous and not distinctly separated. *Hyphal system* dimitic: skeletal hyphae hyaline (fig. 1b), 4–5 μ diam., with walls up to 1 μ thick. Generative hyphae hyaline, with thin walls, about 2–3 μ , with very long cells, so that the clamp connections are rare and difficult to see. *Basidia* clavate, 20 $\times$ 8 μ , divided up longitudinally in the upper part (Fig. 1a), with 4 sterigmata which are subulate and 10–12 μ long. *Basidiospores* hyaline, neither cyanophilous, nor amyloid, nor dextrinoid, with thin walls, subcylindric, more or less depressed, with one apical region which can be dyed strongly with ammoniacal Congo, 9–11 $\times$ 4–5 μ (Fig. 1c).

This species is easily recognizable by its big pores which are often hexagonal. It differs from the other two known species of *Aporpium* by the size of the basidia and of the spores, and by the fact that the probasidium is only divided up longitudinally in the upper part.

Ecological and geographical distribution

LY AD 1763 (holotype in the herbarium A. David, University of Lyon), on prostrate trunk, partly buried in the ground, at the edge of the forest, Jungle Fall Valley Path, behind the hut, Bukit Timah Reserve, Singapore, 28.7.1974. LY AD 1820 on section of a trunk, within the edge of the forest, McRitchie Jungle, Singapore, July 1974.

An *Aporpium* sp. very similar to *A. dimidiatum*

This species, which we collected only once in Singapore presents so many similarities with *Aporpium dimidiatum* that we prefer to be cautious and not to make it a new species, at least for the time being. It differs from *A. dimidiatum* in the small size of its fruiting bodies, the smaller pores, and in being constantly sulcate. *Fruiting bodies*, many, small, dimidiate to effused-reflexed, solitary or more or less confluent in longitudinal stripes, 2.5–3 cm long, radius 1.5 cm, 0.7–8.0 cm thick, becoming very hard after drying. *Upper surface* convex, not hairy, but showing a fine tomentum under the hand-lens, beige to light rust 10 YR 8/3 7/3 7/4. Marginal area usually with 2–3 concentric grooves, the rest of the upper surface more or less scrobiculate. *Context* leathery, strongly zoned with brown

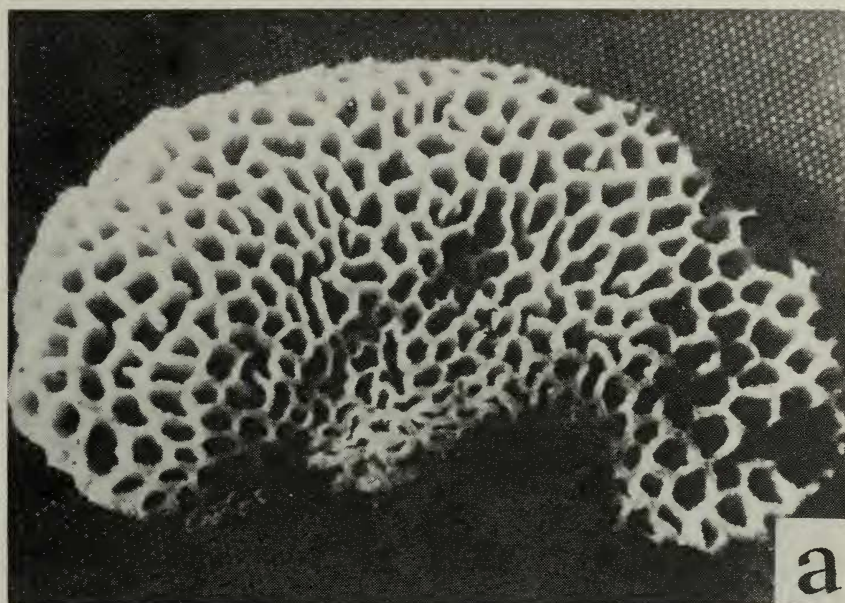


Plate 1. Fruitbody of *Aporpium hexagonoides* (x3)
a: hymenial surface, b: upper surface.